Amendment to the Claims:

1. (Original) An electrode for the electrochemically reversible interconversion of the oxidised and reduced versions of a pyridine nucleotide comprising:

an electrically conducting surface;

an isolated pyridine nucleotide dehydrogenase module of an enzyme;

wherein said isolated pyridine nucleotide dehydrogenase module is applied to the electrically conducting surface.

2. (Original) An electrode according to claim 1 wherein said isolated pyridine nucleotide dehydrogenase module of an enzyme is derived from any one of the enzymes selected from the group consisting of: NADH:quinone oxidoreductases (complex I, EC 1.6.5.3 and EC 1.6.99.3); sodium-translocating NADH:quinone oxidoreductases (Na^+-NQR); soluble cytoplasmic hydrogenases; and soluble dehydrogenases.

3. (Original) An electrode according to claim 2 wherein said isolated pyridine nucleotide dehydrogenase module of an enzyme is the Iλ subcomplex of bovine mitochondrial NADH:ubiquinone oxidoreductase.

4. (Currently amended) An electrode according to ~~any one of the preceding claims~~claim 1 wherein said isolated pyridine nucleotide dehydrogenase module of an enzyme is chemically or physically modified such that the pyridine nucleotide dehydrogenase activity is retained.

5. (Currently amended) An electrode according to ~~any one of the preceding claims~~claim 1 wherein said isolated pyridine nucleotide dehydrogenase module of an enzyme is applied to the surface of the electrode by a method selected from the group consisting of: physisorbtion; ionic interaction;

chemisorbtion; hydrophobic interaction and binding in a polymer matrix.

6. (Currently amended) An electrode according to ~~any one of the preceding claims~~claim 1 wherein the dehydrogenase module of an enzyme has been obtained by expression of subunits of said module in a recombinant host cell.

7. (Currently amended) An electrode according to ~~any one of the preceding claims~~claim 1 wherein said electrically conducting surface is made from a material selected from the group consisting of: carbon; gold; silver; platinum; palladium; tungsten; iridium and well doped semiconductor electrodes ~~such as titanium oxide, indium oxide, tin oxide, or diamond~~.

8. (Original) An electrode according to claim 7 wherein said electrically conducting surface is a carbon material which is chosen from the group consisting of: glassy carbon; highly ordered pyrolytic graphite (HOPG); edge oriented pyrolytic graphite; and graphite.

9. (Currently amended) An electrochemical cell comprising:

a working electrode according to ~~any one of the preceding claims~~claim 1;

a reference electrode; and

one or more electrolytes.

10. (Original) An electrochemical cell according to claim 9 further comprising an auxiliary electrode.

11. (Currently amended) An electrochemical cell according to claim 9 ~~or 10~~ wherein said reference electrode is a standard reference electrode and is selected from the group consisting

of: a standard calomel electrode; and a silver/silver chloride electrode.

12. (Currently amended) An electrochemical cell according to ~~any one of claims 9 to 11~~claim 9 wherein said electrolyte comprises one or more buffers selected from the group consisting of: sodium acetate; potassium phosphate; MES; HEPES; and TAPS.

13. (Currently amended) An electrochemical cell according to ~~any one of claims 9 to 12~~claim 9 wherein said electrolyte comprises a body fluid sample.

14. (Currently amended) An electrochemical cell according to ~~any one of claims 9 to 13~~claim 9 wherein said electrolyte further comprises:

a substrate;

a second enzyme ~~capable of converting~~which is effective to convert the substrate into a product;

wherein said second enzyme uses a pyridine nucleotide as a cofactor.

15. (Original) An electrochemical cell according to claim 14 wherein said second enzyme is a dehydrogenase enzyme.

16. (Original) An electrochemical cell according to claim 15 wherein said second enzyme is selected from the group consisting of enzymes with EC numbers: 1.1.1; 1.2.1; 1.3.1; 1.4.1; 1.5.1; 1.7.1; 1.8.1; 1.10.1; 1.11.1.1; 1.11.1.2; 1.12.1; 1.14.12; 1.14.13; 1.16.1; 1.17.1; 1.20.1.

17. (Currently amended) A method for effecting the electrochemically reversible interconversion of the oxidised and reduced forms of a pyridine nucleotide in an electrolyte containing at least one of the oxidised form and~~/or~~ the

reduced form of the pyridine nucleotide said method comprising applying a potential between the working electrode and the reference electrode of an electrochemical cell wherein said electrochemical cell is as defined in ~~any one of claims 9 to 16~~claim 9.

18. (Original) A method according to claim 17 wherein the potential applied between the working electrode and the reference electrode is such that the current flowing through the electrochemical cell is proportional to the concentration of either the oxidised or the reduced form of the pyridine nucleotide present in the electrolyte.

19. (Currently amended) A method according to claim 17 ~~or 18~~ wherein the reduced form of the pyridine nucleotide is present in the electrolyte and said potential applied between the working electrode and the reference electrode is an oxidative potential converting ~~the~~said reduced form of the pyridine nucleotide into the oxidised form.

20. (Original) A method according to claim 19 further comprising:

monitoring the current flowing through the electrochemical cell;

relating said current to the concentration of reduced pyridine nucleotide.

21. (Currently amended) A method according to claim 17 or 18 wherein the oxidized form of the pyridine nucleotide is present in the electrolyte and said potential applied between the working electrode and the reference electrode is a reductive potential converting ~~the~~said oxidised form of the pyridine nucleotide into the reduced form.

22. (Original) A method according to claim 21 further comprising:

monitoring the current flowing through the electrochemical cell;

relating said current to the concentration of oxidised pyridine nucleotide.

23. (Currently amended) A method of altering the relative concentrations of oxidised and reduced forms of a pyridine nucleotide in the electrolyte of an electrochemical cell containing at least one of the oxidised and~~/or~~ reduced forms of said pyridine nucleotide wherein said electrochemical cell is as defined in ~~any one of claims 9 to 16~~claim 9 and wherein said method involves applying a potential difference between the working electrode and the reference electrode of the electrochemical cell.

24. (Currently amended) A method of altering the rate of conversion of a substrate to a product in the electrolyte of an electrochemical cell, wherein said electrochemical cell is as defined in ~~any one of claims 14 to 16~~claim 14, comprising applying a potential difference between the working electrode and the reference electrode of the electrochemical cell.

25. (Currently amended) A method for measuring the concentration of the substrate in the electrolyte of the electrochemical cell of ~~any one of claims 14 to 16~~claim 14 wherein said method comprises:

applying a potential difference between the working electrode and the reference electrode;

monitoring the current flowing through the electrochemical cell; and

relating said current to the concentration of the substrate.

26. (Currently amended) A method according to ~~any one of the preceding claims~~claim 1 wherein said pyridine nucleotide is NADH.

27. (Currently amended) A method according to ~~any one of the preceding claims~~claim 1 wherein said pyridine nucleotide is NADPH.

28. (Currently amended) A method according to ~~any one of the preceding claims~~claim 1 wherein said pyridine nucleotide is NAD^+.

29. (Currently amended) A method according to ~~any one of the preceding claims~~claim 1 wherein said pyridine nucleotide is $NADP^+$.

30. (New) An electrode according to claim 7, wherein said well doped semiconductor electrodes are selected from the group consisting of titanium oxide indium oxide, tin oxide or diamond.